

432 MHz AND ABOVE EME NEWS

May VOL 28 #5

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EME NETS

14.345, 10 AM ET SATURDAYS, AFTER VARO NET SUNDAYS:

- **NET CONTL: JOE, K1RQG (207-469-3492), E-MAIL: Joe, K1RQG**
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CONDITIONS

The DUBUS/REF Contest generated plenty of activity on 70 cm, but conditions were far from ideal. Faraday was optimum near 90 degs and signal quality was poor much of the time. I am not sure if the poor copy was due to libration or atmospheric effects resulting from a recent aurora, or a combination of both. I found copy especially bad on Saturday, but not good at any time I was active. Conditions were better on the microwave bands, but activity there was down. On 3 cm, no reports of QSOs were received. The low turnout on the microwave frequencies seems a strong justification for a separate microwave EME contest weekend.

DUBUS/REF CONTEST HIGH SCORES: I have very few reports of high scores on 70 cm, at least not from the so-called "big guns". From the reports received SM3AKW is in the top spot on 70 cm with 58x32. Carl also takes the lead on 23 cm with 42x27 from ZS6AXT who reported 38x23 last month. On 13 cm LX1DB appears to be in the lead with 13x?, and is followed by Ivo (ZS6AXT) with 10x7 .

AL7OB

Mike was active on 70 cm during the DUBUS/REF and worked a number of stations. He reports that SM3AKW had a very strange effect on his signal. It sounded like 2 separate signals and he could copy them both. Mike is working on a 30' dish.

DJ5MN

Bernhard reports on his 23 cm activity for the last few months (using a 3 m dish and TH327) -- I added initials with **SV1OE, KD5IUV (same as K5JL?), F5PL, W1ZX, K9BCT, LU8EDR, JF3HUC** - TNX to PA3CSG for QSYing to allow me to complete this QSO, **VE6TA, W7SZ and last but not least DK5MV**. On 9 April I worked my brother Mike, **DK5MV**, who was using my old station. Mike is only about 3 m away, so this might be the world shortest 23 cm EME QSO? I am now up to initials #75 on 23 cm. I am still missing QSLs from the following stations: **K5JL, KB2AH, N2IQU, DH9FAG, F2TU, SM6CKU and VE1ZJ**. I am also looking for addresses for the following stations to send them my QSL: **KD5IUV, W1ZX, W7SZ, K9BCT and JF3HUC**. Send any info to .

DL7APV

Bern writes I was on for the REF/DUBUS Contest with my new 8x13 w/ 9BV antenna, but I did not get very good results. The new antenna doesn't work as expected. Most of the problems are on the mechanical side. The double H Frame is not stable enough (swings) and the lift system of the tower makes big trouble. So I decided today to take down the whole array. My neighbor has a steel welding company and will help with some parts. I will be QRT for a while, but hope to be back on in the summer.

G3LTF

Peter's April EME report -- I concentrated solely on 13 cm for the last SW and had the good fortune to work **JA4BLC** for the 1st JA/G QSO on 13 cm and my best DX at 9,397 km. Sadly there was virtually no activity from NA. If anyone doubts that we could lose this band, they should note that the UK government is about to collect around \$27 Billion for auctioning a slice of spectrum just below 13 cm. I can now set my predicted 2320 MHz Doppler very accurately, and similarly set the declination on the polar mount. I then just turn the HA axis until the echoes appear, this enables me to find the moon on 13 cm without moon visibility, which I could not do before. I have about 150 W in the shack, but only about 70 W at the feed due to my 50 m feed run. Sun noise is about 17.5 dB with flux of 175. I worked the following, (all are cross-band 2320/2304 unless noted), on 8 April **OE9ERC**, **OE9XXI** (2 way on 2320), **ZS6AXT**, **OK1CA** for initial #16, **OZ4MM** and **HB9SV**, and on 9 April **JA4BLC** #17 (2320/2424), **G3LQR** (2way 2320). Heard and called many times were **OH2AXH** and **LX1DB**, presumably not looking on 2320. I know that **W5LUA** was on, but I missed him. I have a long list of things to do to improve the system, but I am pleased to accept skeds with anyone who wants to try. I can now listen on all 3 frequency segments, thanks to the kind gift of a 2424 down converter from Yoshi, **JA4BLC**. I had skeds on 23 cm, but heard nil from **JA8IAD**, **LU8EDR** and **W1QC**. I copied **SV1OE** but I don't believe he was hearing me. He was weaker than when I have heard him before.

F5PAU

Francis submits his European contest results for 1296. He QSO'd on 8/9 March **ZS6AXT** (579/559), **F6CGJ** (569/569), **OE9XXI** (569/579), **OE5EYM** (569/569), **F1ANH** (569/569), **N2IQU** (579/569), **K5JL** (579/579), **W2UHI** (569/569), **OZ4MM** (579/579), **SM3AKW** (569/569), **OZ6OL** (559/559), **W1QC** (559/449) for initial #122, **W7SZ** (559/559) #123, **EA3UM** (559/559), **WA9FWD** (559/449), **OE9ERC** (569/579), **W7QX** (559/O) #124, **W5LUA** (569/559), **HB9BBD** (589/579), **JA8IAD** (569/449), **S59DCD** (559/559), **DH9FAG** (559/549), **IK2MMB** (559/559), **F5AQC** (549/549), **DL6YDH** (559/549), **KB2AH** (569/569), **K2UYH** (559/559), **K4QI** (559/559), **VE6TA** (559/O), **CT1DMK** (449/O), **DJ5MN** (449/549), **HA5SHF** (559/O), **G3LTF** (579/559), **F5PL** (569/559), **G3LQR** (569/549), **DK5MV** (559/559) #125 and **LX1DB** (56/57) on SSB for a score of 37x27.

HA5SHF

Csaba (HA5BGL) group's results in DUBUS/REF EME Con- test on 1296 -- We worked 11 stations with our new dish, a 3.1 m solid dish by Andrew. QSO'd were on 18 March **OE9XXI, HB9BBD, G3LTF, OE9ERC, F1ANH, SM3AKW and OZ4MM**, and on 19 March **N2IQU, OE5EYM, F5PAU and LX2DB** for an initial.

I5TDJ

Piero's April 432 MHz activity report -- Unfortunately, due to several problems, I have not been able to be active during the past few months. On Saturday 8 April conditions seemed below normal. Maybe the ionosphere had not yet recovered from the proceeding day's aurora (WWV A index was 50). I worked only **SM2CEW**, CWNR were **DL9KR** (yes, Jan) and **SM3AKW**. Heard were **RW1AW, VK4AFL and N2IQU**. On Sunday 9 April conditions seemed better, and I added **HB9Q for initial #112, VK4AFL #113 on sked - good sigs and only 10 minutes to complete, K1FO, DK3WG, OE5EYM and DL9NDD**. CWNR were **DL9KR and K0RZ** - not bad for spring conditions.

IK5WJD

Alex sends news that he has retired. As a result he has a new e-mail address:

[Alex, IK5WJD](#)

Please do not use his old address, which is not active anymore. Alex hopes to now have more time to devote to his 432 MHz and 10 GHz EME activity.

JA4BLC

Yoshiro brings us up-to-date on his EME activity since Oct I added initials on 432 on 23 Oct with **JA8IAD #255**, on 25 Dec with **JH1KRC #256, JH0WJF #257, PA0AVS #258 and RA3LE #259**, and on 26 Dec **AL7OB #260**. On 1296, I had success on 27 Nov with **DJ5MN #74** running only 60 W on TX into a 6 m dish. On 13 cm, I worked on 8 April **OK1CA (O/O) for initial #20**, and on 9 April **HB9SV (569/559) #21 and G3LTF (O/O) on 2320/2424 #21**. In the Euro EME Contest, as I had business conflict on March, I was only able to active in April. I made 10 QSOs on 432 and 8 QSOs on 2304-2424.

JA6AHB

Toshio at e-mail:

[Toshia, JA6AHB](#)

reports on his March and April 70 cm activity -- I worked on 11 March **VVK4AFL, HB9SV, G3HUL, EA3DXU, DL1YMK and LX1DB** for initial #79, heard was **DL9NDD**, on 12 March **N9AB, VK4AFL, DF3RU, DL8OBU, JH0WJF, JH4JLV, UA6LGH and JR1RCH #80**, heard was **WB0GGM**, on 17

March JH4JLV and JA5OVU, on 18 March K5WXN, heard K2UYH, on 8 April K1FO, K5JL #81, K2UYH, AL7OB, JA4BLC, VK4AFL, W7CNK, JJ1NNJ, W7SZ, DK3WG, SM3AKW, DL9KR, PA3AVS, UT1PA, G4ERG, OE5EYM, HB9Q #82, SM2CEW #83, F6KHM #84, DL1YMK, JH4JLV, DL7APV, ON4KNG #85 and EA3DXU, on 9 April N2IQU, VE6TA, KB0VUK #86, JA2TY, DL4MEA, OH2PO, OE5JFL, OZ6OL, ON5OF, YO2IS, G3HUL, UA6LGH and UA3PTW, on 15 April UT3LL and EA3UM #87, and on 16 April F6HYE #88, VK4AFL, IK2EAD #89 and OE3JPC, and heard UT3LL and DL8OBU.

K0RZ

Bill reports on his 432 activity since last Nov -- I QSO'd back on 21 Dec **AL7OB** for initial #281, **W7CNK** and **W7SZ**, on 15 Jan **RA3LE**, **RW1AW** #282 and **OZ4MM**, on 9 April **AL7OB**, **DK0TU**, **DL3EAG** #287, partial **DL7APV** - Bernd reported his final flashed over, **DL9KR**, **DL9NDD**, **EA3DXU**, **F6KHM** #283, **G4ERG**, **HB9Q** #286, **K1FO**, **K5JL**, **KA0RYT**, **KB0VUK** #285, **N9AB**, **OE3JPC**, **OE5EYM**, **ON4KNG**, **ON5OF**, **OZ6OL**, **RW1AW**, **S51ZO**, **S52CW**, **SM3AKW**, **UA3PTW** #284, **VE6TA**, **W7BBM**, **W7CNK**, **W7GBI** and **W7SZ**. Condx and activity were good on 9 April.

K7LNP

Pat (DN30xp) reports that he is getting ready to put Utah back on the 432 EME map. He has 4 x M2 9WL yagis fed with Cellwave 3/8" Superflex line, a Henry 2004 PA running at full power and a Michigan Microwave Group LNA. The array is assembled, but he still has to mount it on his tower. Pat expects to be full QRV by mid summer. You can reach him by e-mail at:

Pat, K7LNP

His postal address is (Pat Schouten, 6970 S. Foxflower Ct, West Jordan, Utah 84084), tel H 801-963-6528 and W 801-961-3412.

K7XQ

Is now QRV on 432 EME with a small station consisting of 2 x M2 432-9 WL (like IK5QLO), 8930 PA with 400 W out and Yaesu FT-847. He hoped to make his 1st QSO during the 2nd part of the REF/DUBUS Contest, and is available on weekends just about anytime and between 0500 - 1400 weekdays for skeds. He can be reached by e-mail at:

K7XQ

His QTH is in Atwater, CA - grid (CM97qi).

KA0RYT

Ron is now using the stripline amp he had used portable from his home. He is

running over 1 kW out and worked 18x15 in the DUBUS/REF Contest on 432. QSOs included one initial with HB9Q. Ron reports calling KE2N and asks did anyone else hear him around 432.020?

KD5FZX

Mats (x-SM6IKY) is now QRV from his new QTH. He is using the same equipment as before (5 m Dish, 500 W at VE4MA feed with polarizer, 4 x 7289 water-cooled PA and MGF 4318D LNA with 0.25 dB NF). The new QTH has a greatly improved EME window. Mats has a new e-mail address at:

Mats, KD5FZX

and also a new home address: Mats Bengtsson, 1206 Westminister Ln, Duncanville, TX 75137.

LX1DB

Willie was QRV on 13 cm during the April part of the REF/DUBUS Contest. He operated on 2304 expect during his JA window when he was on 2320 and listen on both 2320 and on 2424. He notes that when he calls CQ on 2304.080, he listens also around 2304.080, but when he is on 2320.080, he listens on both 2320.080 and 2424.080. Willy worked 12 stations on 13 cm, but no NA stations were heard. **JA4BLC** was very strong on 13 cm. On 10 GHz he has 1.5 dB of moon noise. He is using a new dish with many improvements. Willie's e-mail is:

Willie, LX1DB

OE5JFL

Hannes writes -- In the 70 cm part of the DUBUS con- test I was only on for 2 1/2 hrs. Conditions were quite good at that time, and I worked 35 stations including **HB9Q, F6KHM, DL1DWI, YU1EV** for initials.

Back in March I tried something very interesting on 23 cm -(similar to the EME test with a dual-dipole-feed on 70 cm back in Nov.) Recently I had extended my spare W2IMU horn with a cone and got a 'mouth' diameter of 1 m with an overall length of 2.3 m. I use this antenna for checking preamps. From simulation the gain should be between 20 and 21 dBi; enough to make some 23 cm EME QSOs with it, considering that I can hear the big guns more than 30 dB out of the noise (in 100 Hz bandwidth). My big dish has 39 dBi gain. So the 18 ~ 19 dB difference should still result in 10 ~ 14 dB of signal strength. Echo testing was successful immediately, both ways (TX dish, RX horn and vice versa). When I transmitted with the horn, the signal was even better, because there was only 0.5 db cable loss. I have 2 dB of loss to the dish. My best echoes were 13 dB, as predicted by my calculation. The DUBUS contest was a good occasion to try some QSOs. Within 3 hours I worked 10 stations on random with this small

antenna. QSO'd were HB9BBD, OZ4MM, N2IQU, K2UYH, ZS6AXT, SM3AKW, OE9ERC, F6CGJ, OE9XXI and OE5EYM. A few more replied with QRZ. A highlight was my QSO with ZS6AXT, who is using only a 5 m dish. Therefore it should be possible to work a 10 m dish station using a 0.5 m horn! In another test I found that echoes were still audible when receiving with the big dish and transmitting with only 50 Watts at the horn. Although I will prefer to use my big antenna for EME in the future, I think this was a nice demonstration of what is possible on 23 cm. For those interested, I have uploaded pictures and audio files to my WEB page at

Small Antenna Experiments

on sub-page 'audio samples'.

OK1CA

Franta was QRV on 13 cm on 8 April -- It was happy day for me on 2.3 GHz. I worked JA4BLC (O/O) for initial #5 crossband 2304/2424 MHz, plus OE9XXI (569/549) #6, G3LTF (O/O) #7 2304/2320 MHz, OH2AXH (449/439) #8, ZS6AXT (449/449), LX1DB (549/449) #9 and W5LUA (559/O) #10. I also heard OK1KIR, OZ4MM and CWNR HB9SV. I have a new e-mail address at:

Franta, OK1CA

for my home and EME QTH.

OK1DFC

Zdeník writes that he has been very busy and not had much time for our hobby -

But in April I was able to install a new feed on my dish. It is new design by OK1CA with septum polarizer. The advantage by this system is that it does not require a hybrid for circular polarization. Connections are directly to the TX and RX ports. I save 1.5 dB in loss on the RX and TX ports. My Sun noise is now 11.2 dB. Before the new feed I had only 9 dB of Sun noise. My echoes seem stronger and clearly. The main beam angle is also sharper. I QSO'd on 18 March at 2000 SM3AKW only. On 8 April I added GW3XYW (559/559), W2UHI (559/559), DF4PV (539/429), DK7LJ (55/36) on SSB for initial #86 and W6HD (559/559).

ON4KNG

Peter's April 70 cm News -- During the last DUBUS Contest, I had the pleasure to contact on 432 27 stations in 20 multipliers (SM, DL, HB9, OE, JA, K1, K5, W7, G, EA3, VE6, K0, PA, K4, ON, RW1, OZ and N9). Initials were made with HB9Q, JA6AHB, W7BBM, W7SZ, RW1AW, and KB0VUK to bring me to #144.

I operated with my usual equipment consisting of 8 x 32 el (11 wl) opt-9BV yagis with open tubing (6 mm alum) for phasing lines and a YL1050 power amplifier delivering 1 kW to the antenna.

OZ4MM

Stig says -- I have been a little behind in reporting to NL, but as spring is coming, I have many projects around the house. This year it's rebuilding my workshop including new floors and walls. So little time has been spent at EME in the last few months. It's a shame not to have been able to put as much effort in the game as in the previous REF Contests. Anyway I found time to be on for a few hours in the 1st part of the contest on 1296 and in the last part on 2304. Sorry to miss 432 this year, but my moon time was so limited that I decided to concentrate my few hours on 2304 only. In part one on 1296 I worked 39 stations (multi not known yet). Among the new stations picked up were **K9ZZH (O/M)**, **VE6NA (439/559)** and after the contest on 1 April **F6KPF/P (449/569)** for initial #165. In the last part I worked 9 stations on 2304: **OK1KIR (449/559)**, **G3LTF (429/559)**, **ZS6AXT (549/579)**, **HB9SV (569/579)**, **G3LTF (429/569)** to confirm earlier contact, **OE9ERC (579/559)**, **OE9XXI (579/569)**, **LX1DB (569/569)**, **JA4BLC (449/559)** and **G3LQR (429/559)** to bring me to initial #31. I did not hear a single NA station during the weekend. I know from the NL that a few new stations are prepared for 13 cm. I will let my 2304 feed stay in the dish and would be very interested in skeds with some of these stations - (K2UYH?). [I'll see what I can do to get back on this summer.] I am also inter-ested in skeds for 432 and 1296.

RW1AW

Alex made 26 QSOs with 4 initials including PA0AVS and HB9Q during the contest in April on 70 cm. He working on 23 cm and should be QRV by June with about 500 w from 2 x GS31b Cavities. He is getting about 600 w from one cavity and expects 3 dB of line loss. His dish will be 3.8 m to start.

S52CW

Uros' group had a good time on 70 cm during the last part of the REF/DUBUS Contest. They QSO'd **DL9KR (twice)**, **F6HYE**, **UT3LL**, **DL8OBU**, **VE6TA**, **EA3DXU**, **RW1AW**, **K5GW** and **K4QI** among others.

S57UUU

Marko was QRV on 3 cm for the DUBUS Contest, but heard nil from anyone else -- I set up my 10 GHz rig on Saturday (8 April) at 0900. The WX was super, 15 deg C, partly sunny and almost no wind. The hardware worked flawlessly. Echoes were UFB. The only QRM were the birds singing in the trees. (Does that qualify as QRN?) But apart from my own echoes, I didn't hear even a trace of any other signal. Every half hour or so, I transmitted a couple of periods of CQs, but with no reply. Did I miss any arrangements about which day was for 10 GHz or something? At about 1800 I had to power down because of a spring shower.

Thus ZERO QSOs this time. I felt a little demoralized and I didn't set up on Sunday.

SM2CEW

Peter writes -- I had a rough winter with plenty of snow and frequent storms, hence activity has been somewhat low. Now the WX has improved and I'm able to use the dish again. I was active on 1296 and worked on 11 March F1ANH, W5DXL for initial #120 (any info on this station who also was worked by OE9XXI at the same time), IK2MMB, W2UHI and OZ6OL, and on 12 March SM3AKW, LX1DB, VE6NA #121, and LU8EDR #122 and DXCC 28. Both VE6 and LU8 were on random. On 8/9 April in the contest I worked on 432 the following stations: HB9Q for initial #363, DL9NDD, DL7APV, EA3DXU, JA6AHB, DL1YMK, F6HKM, SM3AKW, ON4KNG, DL9KR, RA3LE, UT3LL, UA3PTW, DK3WG, KB0VUK #365, WE2Y, I5TDJ, OH2PO, G3HUL, YO2IS, OE3JPC, G3SEK, K5JL, K2UYH, ON5OF, DL4MEA, G4ALH, W7GBI, RW1AW, UA6LGH, PA0AVS, DK3BU, JR1RCH #366, OZ6OL, G4ERG, S52CW, K1FO, DL8OBU, VE6TA, K9BCT, K4QI, OE5EYM and AL7OB. About 60-70% of these stations were the same ones I worked 8-10 years ago in the contests, so on one hand it is good to see some old friends on the band, but also sad to see that there are so few new stations coming on, at least for contesting. Polarization was never aligned H or V during the time I operated, mostly Faraday was at about 45 degs.

SM3AKW

Carl reports on his contest efforts -- On 23 cm I made scored 42x27 and on 70 cm 58x32. I also made a few QSOs on 2 m. QSO'd on 1296, on 8 March at 0013 OE5EYM, 0016 K5JL, 0019 ZS6AXT, 0036 F6CGJ, 0047 OE9XXI, 0053 VE6TA, 0101 OZ6OL, 0114 CT1DMK, 0131 W4AD for an initial (#), 0140 WA9FWD #, 0150 F5PAU, 0221 W7SZ, 0230 K2UYH, 0235 OZ4MM, 0250 F1ANH, 0307 W5LUA, 0316 OE9ERC, 0323 N2IQU, 1647 OK1DFC, 1819 HB9BBD, 1920 JH5LUZ, 2000 G3LQR, 2011 S59DCD, 2026 DH9FAG, 2115 HA5SHF, 2130 IK2MMB, 2138 G4DZU, 2245 F5AQC, 2341 W1QC and 2356 W3XS, and on 9 March at 0013 KB2AH, 0015 W2UHI, 0100 K4QI, 0129 OE5JFL, 1734 JF3HUC, 1743 JA8IAD, 1803, DL0SHF, 1845 EA3UM, 1853 G3LTF, 2035 LX2DB, 2111 DK5MV and 2119 F5PL. QSO'd on 432, on 8 April at 0852 DK3BU, 0900 DK3WG, 0905 UT1PA, 0921 PA0AVS, 0925 JA6AHB, 0930 ON4KNG, 0937 VK4AFL, 0941 DL9NDD, 0955 EA3DXU, 1042 JA5NNS, 1104 JJ1NNJ for an initial (#), 1124 HB9Q #, 1130 JH4JLV, 1138 SM2CEW, 1228 OE5EYM, 1238 OH2PO, 1255 RA3LE, 1304 DL7APV, 1312 YO2IS, 1326, PA3DYN #, 1550 UA6LGH, 1559 F6KHM #, 1619 DL1YMK, 1627 G4ERG, 1636 K5JL, 1640 G3SEK, 1649 UT1PA (dup), 1715 K1FO, 1727 N2IQU, 1737 ON5OF, 1747 W7SZ, 1827 VE6TA, 1838 K2UYH, 1931 DL4MEA, 1942 OE5JFL, 1948 OZ6OL, 1954 W7GBI (569!), 2007 DL9KR, 2026 W7CNK, 2101 W7BBM, 2128

KB0VUK #, 2152 AL7OB, and on 9 April at 0924 RW1AW, 0941 JA4BLC, 1015 JA2TY #, 1250 UA3PTW, 1317 OZ6OL (dup), 1431 S52CW, 1736 K0RZ, 1820 K4QI, 1828 K9BCT, 1841 UT3LL, 1838 G3HUL, 1848 PA2CSG, 1852 S51ZO #, 1911 KA0RYT, 1941 OE3JPC, 1947 DK0TU, 2039 WA4NJP and 2049 N9AB.

W5LUA

Al made 2 contacts on 13 cm during the 2nd part of the REF/DUBUS Contest. He connected with **OK1CA** for an initial and also worked OE9ERC. He called a few CQs with no answer. Al also has a QSO on 5760. Al has a new e-mail address at:

Al, W5LUA

W7SZ

Larry spent his time on 70 cm in the 2nd part of the contest. He worked 14x13 with 3 initials to **K5JL, HB9Q and ON4KNG**. He also worked **JA6AHB** and others. Larry used a 4 x 42 el cross yagis (21 el each pol) on 70 cm. He is working on a new 12' dish.

WB4BKC

Andrew plans to be QRV on 1296 on 13 May with the Georgia Tech 30' dish in Woodbury, GA. He will have 150 W and be on from moonrise to moonset. Andrew will also try to be QRV on 70 cm from his new home QTH during the May SW with an array of 4 x 18FO yagis and an 8938 1.5 kW final.

ZS6AXT

Ivo sends his greetings and reports On Saturday, 8 April, on 13 cm I worked **OE9ERC, HB9SV, G3LTF, OE9XXI, OH2AXH, OK1KIR, OK1CA and OZ4MM**. CWNr was JA4BLC. On Sunday, 9 April again on 13 cm, I added **JA4BLC and LX1DB**. Due to my short moon window, I missed W5LUA and maybe others. Very poor participation this year on 13 cm! 20 hours of operation gave only 10 QSOs. I had good conditions most of the time with a visible moon, and thus could use my CCTV camera for moon tracking. My echoes were 559 ~ 569. We really need another microwave EME Contest. I hope that it will be organized again this year!

K2UYH

I spent my available time during the April SW on 70 cm operating the DUBUS/REF Contest. My time was limited by family and work commitments, but I was able to put in more than 6 hours. I found conditions poor, particularly on Saturday. Copy was very difficult for someone with limited CW ability as myself. Thanks to those who persevered my numerous QRZs. I QSO'd on 8 April at 0030 **JH0WJF (O/O) for initial #625 on sked after several near misses, 0104 JA5OVU (449/559), 0109 K1FO (569/569), 0116 AL7OB (449/O), 0123 JA6AHB (559/559), 1657 SM2CEW (569/559), 1702 N2IQU (579.569), 1707**

G3SEK (559/449), 1720 DL9KR (579/569), 1730 OE5EYM (569/559), 1735 G4ERG (559/559), 1750 OE3JPC (O/O), 1808 K5JL (579/569), 1815 DL9NDD (569/559), 1830 DL1YMK (559/559), 1828 SM3AKW (559/559), 2030 G4RGK (559/559), 2042 HB9Q (559/549) #626, 2117 W7GBI (559/559), 2135 ON5OF (559/559), 2146 W7BBM (559/539), 2157 VE6TA (459/559) and 2216 AL7OB (449/549) dup, and on 9 April at 0143 K4QIF (559/559), 0217 KB0VUK (O/O), 0224 KA0RYT (O/O), 0232 JA4BLC (559/559), 0242 JJ1JJN (O/O), 1942 RA1AW (459/559), 1945 W7SZ (o/O), 1955 partial RA3YCR (O/-) lost, 2006 OZ6OL (459/559) and 2020 S52CW (O/559). I ended with 31x18 and only wished I had more time despite the frustrating copy. I was on 1296 on the post SW looking for the French Conference demonstration station. I had no moon window at the start of their announced operating period, so I called for about an hour around 1200 on 1 April, but heard nil except for my own echoes. This is the problem with open tests. At least a few activity times in different moon windows should be set.

NETNEWS

G4RGK, DAVID DIBLEY

F5KDK was QRV on 70 cm in the contest from F1CH's place (JN23vf).

EA8/LA8LF 3.75 m dish photos can be viewed at:

EA8/LA8LF

K2DH is QRV again on 23 cm, but currently has no 13 cm capability.

K6IBY is still QRT on the moon, but is working on his 70 cm array.

K5JL worked 14 stations during the SW/contest on 70 cm. Jay stayed vertical most of the time. Initials were AL7OB, K6JEY and W7SZ.

K9BCT worked K1FO on 432 in April.

WE2Y reports that VK4AFL was very strong during the April contest.

G4RGK is still not QRV, and hopes to get his winter damage fixed soon.

K0YW is working on the control circuits for the TH-327.

W2UHI was on 23 cm during the April SW and QSO'd CT1DMK, OK1DFC, DF4PV and DK7LJ on SSB.

NU7Z is now looking for 5760 skeds. He is using 130 W and a 4 m dish. On 6 cm he worked W5LUA, but missed OH2AXH and still needs CT1DMK.

W6WE is currently QRT on EME, but should be back on in the near future.

WB0GGM has lost the screen supply to his PA. DL9KR asks if PA3DYN is the same station as PA0AVS? Jan worked 3 initials on 70 cm in the contest with YU1IV, F6KMH and HB9Q.

VE4MA now has 16 W on 24 GHz using cascaded TWTs.

DK3WG finished the contest with 38x? on 70 cm. Initials were F6KHM and HB9Q. Jurgen is looking for QSLs from N2HLT and W8MQW.

G4ALH reports that he is still QRV on 432 EME.

VE6TA completed the 70 cm part of the DUBUS/REF Contest with a score of 19x14. He had one initial with S52CW and heard K9BCT for 2 sequences but then lost him.

WA1DMV in southern NH is interested in 70 cm EME.

SV1BTR hopes to be back on 70 cm in about a year.

W4AD has not been on 23 cm because of overcast skies. He has only manual moon tracking via a TV camera.

AA2GF at:

[AA2GF](#)

is looking for info on a first class 70 cm preamp design.

FOR SALE

LU8EDR Dany at [Dany](#), is searching for a **LX1214E500X Philips Transistor (1.2-1.4 GHz, 50W CW Class AB, 11dB Gain)** for his 23 cm SSPA.

W5LBT has **an 8938 for sale.**

W4TJ has **for sale 8938 tubes (new 88 datecode), an HP-346B noise head and a GR-1236 IF noise amp.** Call Bill at 804-978- 4853 or e-mail to: [W4TJ](#)

KA0Y is looking for an Andrews air flange connector A-406 H, type 87R for 1 5/8 Heliax. Send info by e-mail to KA0Y

TECHNICAL

This month I have information on a simple digital elevation indicator discovered by W1GHz. Paul's article appeared in the Feb/March issue of the North Texas Microwave Society Newsletter (Feed Point). The unit was designed to give the elevation angle of satellite TV dishes mounted on trailers (RV/mobile homes). It consists of an angle to digital encoder and a digital readout unit. Four wires are used to connect between the encoder and the display unit. The display unit requires a 12 volt dc source or can be operated from an internal 9 V battery. There are a number of limitations for EME applications. 1) Its accuracy appears better than a deg, but it has only 1 degree of precision (i.e., only a 2 digit display). This is adequate for most EME stations up through 1296 except for the largest dishes. With my 28' dish a readout to 0.1 deg would be better, but I can get by with only 1 deg. 2) A bigger problem is that there is only about 60 degs of range. I set my unit up so that it reads out between about 10 and 70 degs. (When out of range it displays "LL" or "HH".) I can not operate in any direction much below 10 degs and the moon never gets above 70 degs at my latitude, so this range is adequate for me, but could be a problem for stations with a wider moon window. (I also have my analog readout still in operation as a backup.) To set up the unit, you must set your antenna accurately to 22 deg of elevation and then follow the calibration procedure supplied with the unit. By adjusting the actual angle of the encoder and re-calibrating (at 22 degs el) you can achieve any desired 60 deg segment between 0 and 90 degs. 3) The display stays on for only about a minute, and then a button must be pushed to re-initiate the display. (This requirement can be eliminated by the addition of some very simple circuitry.) Despite these limitations this unit is a quick and relatively inexpensive way of getting an accurate elevation indicator. The unit costs about \$US80. It can be ordered by calling Stark Electronics in Worcester, MA at 508-756-7136 and requesting a Winegard Model DE-4600 Elevation Sensing Unit.

Final

-- Every year I get requests for ARRL EME Contest results. The scores are now out. The 70 cm and above related results are shown at the end of this NL. Congratulations to DL9KR, K5JL, OH2PO, JL1ZCG, ON5RR, OK1KIR and other winners.

-- RIO 2000 Conference Reminder; time has just about run out for getting your reservation and digest material in. Please help by sending your material to Don.

-- Even though there is no contest this month, there is no shortage of interesting EME related events. WB4BKC will be putting the big dish at Georgia Tech on 1296 EME on 13 May see his report. All indications are that the OX2K Greenland EME Dxpediton on 2 m, 70 cm and 23 cm, reported in last month's NL is a "go" for 29 May to 5 June. There is also a chance that Anders, EA/LA8LF may be QRV on 23 cm in May as well.

-- Last month we asked for comments on the desirability of distributing the e-mail version in PDF format to allow the graphics to be included. The responses received have been all positive. Another possibility suggested was to distribute the NL as an MS Word file with the graphics embedded. Would this be a problem for anyone?

--Remember the deadline for DUBUS/REF Contest, log entries must be postmarked no later than 9 May 2000. Send them to Joachim Kraft, DL8HCZ, EME CONTEST, Gruetzmuehlenweg 23,22339 HAMBURG, GERMANY or e-mail to: [DUBUS Email](#)

Please keep sending the activity and technical reports. More technical material is critically needed! I hope to CU off the moon during the SW.

73, Al - K2UYH



SKEDS			
6 May			
Time	432.040	1296.050	5760.050
0730z	OK1DFC-JA6AHB		
0800z	S52CW -JA6AHB		
0830z	GM0ONN-JA6AHB		
0900z	DK3FB -JA6AHB		
0930z	F5AQC -JA6AHB		
1000z	G4ALH -JA6AHB		
1030z	IK5WJD-JA6AHB		
1300z		DJ5MN -IK6EIW	
1600z		WD5AGO-DJ5MN	
1830z			NU7Z -CT1DMK

1900z AL7OB -KB8RQ
2200z AL7OB -K6JEY
2230z VE6TA -K9BCT
2300z VE6TA -KB0VUK
2330z VE6TA -K6JEY

Skeds for MAY 7

Time 432.040 1296.050

0030z	JA6AHB-N2HLT	
0100z	JA6AHB-KAORYT	
0130z	JA6AHB-WA9FWD	
0200z	JA6AHB-W7HAH	
0230z	JA6AHB-W0KJY	
0930z		DJ5MN -JA8IAD
1400z		G4DZU -DJ5MN
1430z		DJ5MN -DC6UW
1600z		W1QC -DJ5MN
1630z		WA9FWD-DJ5MN
1700z		DJ5MN -HB9BHU
1730z		VE6NA -DJ5MN
1900z		KD4LT -OH2DG
2100z		KJ7F -KD4LT

[Learn about the upcoming EME Symposium.](#)

[Most recent Schedules from Klaus, DL4EBY](#)

[Lunar Calendar for 1999 prepared by G3SEK](#)

[Netnotes by K1RQG](#)

[Leave Contest Info or Comments to Allen Here](#)

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